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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,310	09/09/2003	Ed H. Frank	14177US02	2145

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EXAMINER	
JOHNSON, CARLTON	

ART UNIT	PAPER NUMBER
2436	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,310	FRANK ET AL.	
	Examiner	Art Unit	
	CARLTON V. JOHNSON	2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 11/23/2009, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Nasser Moazzami/

Supervisory Patent Examiner, Art Unit 2436.

2. Claims **1 - 42** are pending. Claims **1, 15, 29** are independent. This application was filed on 9-9-2003.

Response to Arguments

3. Applicant's arguments have been fully considered and they were persuasive, therefore, new grounds of rejection have been entered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims **1, 6 - 9, 15, 20 - 23, 29, 34 - 37** are rejected under 35 U.S.C. 102(e) as being anticipated by Bridgelall (US Patent No. **7,039,027**)

With Regards to Claims 1, 15, 29, Bridgelall discloses a method, machine-readable storage having stored upon a computer program having at least one code section, system for multiple encryption in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

a) receiving on a first PHY channel of an access point, a request for initiation of a communication session from an originating access device; (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 7, lines 33-36: mobile unit (wireless device) posts a request to network via channel 336)

b) authenticating said communication session by authenticating said access using a

second PHY channel; (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 7, lines 39 - 66: connection management service request via dedicated channel 338 or 340; authentication center provides authentication request to mobile over dedicated channel; mobile initiates authentication response over dedicated channel; response executes a cellular authentication and voice encryption algorithm; algorithm produces a registration authentication result which is provide to service provider) and

c) hosting said communication session over a third PHY channel , said third PHY channel established between said access point and said originating access device. (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 8, lines 4-9: network assigns traffic channel for transmission of user data; assignment command from network and assignment complete message from mobile; communication on new channel 342)

With Regards to Claims 6, 20, 34, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 1, 15, 29, comprising receiving an identification of said originating access device by said access point. (see Bridgelall col. 7, line 61 - col. 8, line 2: message indicates type of service, user number, and identification of the mobile (wireless device))

With Regards to Claims 7, 21, 35, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having one code section, system according to claims 6, 20, 34, wherein said identity of said originating access device is one or more of a WEP key, a MAC address, and/or an IP address. (see Bridgelall col. 12, lines 29-38: communication with MAC layer; devices connected to the physical layer are under the direction of a MAC management routine (MAC address); MAC layer implies a MAC address; col 12, lines 42-46: internet protocol layer, data delivery using TCP (IP address))

With Regards to Claims 8, 22, 36, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 1, 15, 29, comprising acknowledging said received request on said first PHY channel. (see Bridgelall col. 7, lines 36-39: network provides a channel assignment via channel 334 which provides parameters for access to dedicated channel for call setup (acknowledgement))

With Regards to Claims 9, 23, 37, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 1, 15, comprising determining a type of traffic generated by said originating access device on said first PHY channel. (see Bridgelall col. 7, line 67 - col 8, lines 1: call setup indicates the type of service required (type of traffic))

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims **2 - 5, 10, 11, 16 - 19, 24, 25, 30 - 33, 38, 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bridgelall** in view of **He et al.** (US Patent No. **6,088,451**).

With Regards to Claims 2, 16, 30, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 1, 15 with at least one encryption/decryption key for use during said communication session. (see Bridgelall col. 9, lines 31-42: mobile station (wireless device) has received a key through secure channel; mobile station provides an authentication response to access point; authentication status transmitted to mobile station (wireless device))

Bridgelall does not specifically disclose generating encryption/decryption key. However, He discloses wherein further comprising generating. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: generation encryption/decryption key)

It would have been obvious to one of ordinary skill in the art to modify Bridgelall for generation encryption/decryption key as taught by He. One of ordinary skill in the art

would have been motivated to employ the teachings of He for network-wide centralized user administration and authentication, credential management and network element access. (see He col.1, lines 59-63)

With Regards to Claims 3, 17, 31 Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 2, 17, 31, wherein said authenticating comprises requesting authentication information from an authentication server. (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 7, lines 39 - 66: connection management service request via dedicated channel 338 or 340; authentication center provides authentication request to mobile over dedicated channel; mobile initiates authentication response over dedicated channel; response executes a cellular authentication and voice encryption algorithm; algorithm produces a registration authentication result which is provide to service provider; (authentication center)

With Regards to Claims 4, 18, 32, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 3, 17, 31, wherein said authenticating comprises delivering at least a portion of said authentication information received from said authentication server to said originating access device via said second PHY channel. (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access

point; col. 7, lines 39 - 66: connection management service request via dedicated channel 338 or 340; authentication center provides authentication request to mobile over dedicated channel; mobile initiates authentication response over dedicated channel; response executes a cellular authentication and voice encryption algorithm; algorithm produces a registration authentication result which is provide to service provider; dedicated channel is second PHY channel)

With Regards to Claims 5, 19, 33, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 4, 18, 32, wherein comprising delivering said at least one encryption/decryption key to said originating access device via one of said first PHY channel or said second PHY channel. (see Bridgelall col. 9, lines 31-42: mobile station (wireless device) has received a key through secure channel; mobile station provides an authentication response to access point; authentication status transmitted to mobile station (wireless device))

With Regards to Claims 10, 24, 38, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 9, 23, 37, further comprising at least one key dependent on said determined traffic type. (see Bridgelall col. 9, lines 31-42: mobile station (wireless device) has received a key through secure channel; mobile station provides an authentication response to access point; authentication status transmitted to mobile

station (wireless device))

Bridgelall does not specifically disclose generating encryption/decryption key. However, He discloses wherein comprising generating at least one encryption/decryption key. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: generation encryption/decryption key)
Motivation for He to disclose generating an encryption/decryption key is as stated in Claim 2 above.

With Regards to Claims 11, 25, 39, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 10, 24, 38, wherein comprising distributing said at least one encryption/decryption key via at one or both of said second PHY channel and/or said third PHY channel. (see Bridgelall col. 9, lines 31-42: mobile station (wireless device) has received a key through secure channel; mobile station provides an authentication response to access point; authentication status transmitted to mobile station (wireless device))
He discloses generating an encryption/decryption key is as stated in Claim 2 above.

8. Claims **12 - 14, 26 - 28, 40 - 42** are rejected under 35 U.S.C. 103 (a) as being unpatentable over **Bridgelall** in view of **Sheth et al.** (US Patent No. **7,325,058**).

With Regards to Claims 12, 26, 40, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 1, 15, 29, further comprising establishing at least one channel between said originating access device and a terminating access device. (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 7, lines 33-36: mobile unit (wireless device) posts a request to network via channel 336)

Bridgelall does not specifically disclose a virtual channel.
However, Sheth discloses establishing a virtual channel. (see Sheth col. 6, lines 62-67: virtual circuit or channel is a logical circuit for reliable communications between two network devices; virtual circuit (channel) identified by Virtual Path Identifier; col. 7, lines 19-31: limiting access to networks associated with a virtual circuit (channel); tunnel ID determined based upon domain name and virtual circuit (channel) identifier))

It would have been obvious to one of ordinary skill in the art to modify Bridgelall tfor a virtual channel as taught by Sheth. One of ordinary skill in the art would have been motivated to employ the teachings of Sheth for more secure control over which domains a particular subscriber may connect to using the widely used PPP protocol to combat intrusion such as denial of service attacks. (see Sheth col. 4, lines 24-26)

With Regards to Claims 13, 27, 41, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 12, 26, 40, comprises transferring information between said

originating access device and said terminating access device. (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 7, lines 39 - 66: connection management service request via dedicated channel 338 or 340; authentication center provides authentication request to mobile over dedicated channel; mobile initiates authentication response over dedicated channel; response executes a cellular authentication and voice encryption algorithm; algorithm produces a registration authentication result which is provide to service provider)

Bridgelall does not specifically disclose tunneling

However, Sheth discloses tunneling information between originating access device and terminating access device. (see Sheth col. 6, lines 62-67: virtual circuit or channel is a logical circuit for reliable communications between two network devices; virtual circuit (channel) identified by Virtual Path Identifier; col. 7, lines 19-31: limiting access to networks associated with a virtual circuit (channel); tunnel ID determined based upon domain name and virtual circuit (channel) identifier))

Motivation for Sheth to disclose tunneling is as stated in Claim 12 above.

With Regards to Claims 14, 28, 42, Bridgelall discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 12, 26, 40, comprising establishing at least a portion of said at least one channel over at least a portion of one of said first PHY channel, said second PHY channel or said third PHY channel. (see Bridgelall col 6, lines 7-9: enables user to conduct communications via the network via an access point; col. 7, lines 33-36: mobile unit (wireless device) posts a request to network via channel 336)

Sheth discloses a virtual channel as stated in Claim 12 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlton V. Johnson whose telephone number is 571-270-1032. The examiner can normally be reached on Monday thru Friday , 8:00 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nasser Moazzami/
Supervisory Patent Examiner, Art Unit 2436

Carlton V. Johnson
Examiner

Art Unit 2436

CVJ
February 1, 2010